UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/883,448	06/19/2001	Hirofumi Honda	Q64974	2803

7590 02/08/2006

SUGHRUE MION ZINN MACPEAK & SEAS, PLLC
2100 Pennsylvania Avenue, NW
Washington, DC 20037-3213

EXAMINER	
XIAO, KE	

ART UNIT	PAPER NUMBER
2675	

DATE MAILED: 02/08/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/883,448	HONDA ET AL.	
	Examiner	Art Unit	
	Ke Xiao	2675	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *21 November 2005*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-4* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-3* is/are rejected.

7)☒ Claim(s) *4* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☒ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-2 are rejected under 35 U.S.C. 102(b) as being anticipated by Nagakubo (US 5,757,343).

Regarding **Claim 1**, Nagakubo teaches a driving method of a plasma display panel for driving gradation-wise a plasma display panel having a plurality of discharge cells each arrange in matrix and bearing a role of a pixel by constituting one field of input image signal by a plurality of sub-fields (Nagakubo, Fig. 1, Col. 1 lines 1-42), comprising:

Setting each of the discharge cells to one of a light emission cell state and a light non-light emission cell state in accordance with respective pixel data of the input image signal in each of the sub-fields (Nagakubo, Fig. 1, Col. 1 lines 1-42); and

Causing only the discharge cell under the light emission cell state to emit light a number of light emissions allotted in accordance with weighting of the sub-field, wherein adjacent ones of the plurality of discharge cells constitute a discharge cell block (Nagakubo, cell blocks are inherent in a matrix design) and each of the adjacent ones of the plurality of discharge cells is separately driven according to the respective pixel data

of the input image signal, and for all of the subfields together constituting one field the number of light emission to be allotted respectively to the discharge cells inside the discharge cell block are rendered different, and are varied for each field (Nagakubo, Fig. 2, Col. 2 15-27).

Claim 3 is rejected under 35 U.S.C. 102(e) as being anticipated by Tajima (US 6,222,512).

Regarding **Claim 3**, Tajima teaches a driving method of a plasma display panel for driving gradation-wise a plasma display panel having a plurality of discharge cells each arranged in matrix and bearing a role of a pixel by constituting one field of input image signal by a plurality of sub-fields (Tajima, Col. 11 lines 65-67), wherein adjacent ones of the plurality of discharge cells constituted a discharge cell block and each of the adjacent ones of the plurality of discharge cells is separately driven according to respective pixel data of the input image signal (Tajima, Figs. 24-26, Col. 23 lines 38-51), comprising the following steps serially conducted in each of the sub-fields:

a pixel data write step for setting each of the discharge cells to one of a light emission cell state and a light non-emission cell state in accordance with respective pixel data of the input image signal (Tajima, Col. 12 lines 20-29);

a first light emission sustain step for causing only the discharge cell under the light emission cell state among the discharge cells to emit light the number of light emissions corresponding to weighting of the sub-field (Tajima, Fig. 8, S3);

a first selective erase step for compulsively bringing only the discharge cell positioned at a first position inside the discharge cell block consisting of four of the discharge cells adjacent to one another into the light non-emission cell state (Tajima, Fig. 8 EP);

a second light emission sustain step for causing discharge cells under the light emission cell state among the discharge cells to emit light a predetermined number of times (Tajima, Fig. 8, S3);

a second selective erase step for compulsively bring only the discharge cell positioned at a second position inside the discharge cell blocks into the light non-emission cell state (Tajima, Fig. 8 EP);

a third light emission sustain step for causing only the discharge cells under the light emission state among the discharge cells to emit light a predetermined number of times (Tajima, Fig. 8, S3);

a third selective erase step for compulsively bringing only the discharge cell arranged at a third position inside the discharge cell block into the light non-emission cell state (Tajima, Fig. 8 EP); and

a fourth light emission sustain step for causing only the discharge cells under the light emission cell state among the discharge cells to emit light a predetermined number of times (Tajima, Fig. 8, S3) (Tajima, Fig. 26 emission, sustain and erase pulses are applied to each of the four cells in each of the pixel blocks),

wherein the number of light emissions to be allotted to each of the discharge cells inside the discharge cell block is varied for each field (Tajima, The number of discharges varies with each frame according to the data being displayed).

Allowable Subject Matter

Claim 4 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Statement of reasons for the indication of allowable subject matter:

Regarding **Claim 4**, prior art shows a subfield weighting relationship as claimed where in SFa1 < SFb1 < SFa2 < SFb2 ... SFan < SFbn (Nagakubo, Fig. 2 luminance modes 2 and 3). However all cells on the screen have the same weight. Prior art fails to teach different cells in a single discharge cell block having the claimed weights.

Response to Arguments

Applicant's arguments with respect to Claims 1-2 have been considered but are moot in view of the new ground(s) of rejection.

Applicant's arguments filed 7th December, 2005 regarding Claim 3 have been fully considered but they are not persuasive.

Regarding Claim 3, the applicant contends that Tajima does not show that the weights of the subfields change citing Figs. 23 and 24. Indeed the weights of the subfields are the same for modes 1 and 2 however the claimed limitation is not

specifically that the weights of the subfields must change it is that the number of light emissions must vary per field of display. This broad limitation can read on different data (and therefore different number of light emissions) being applied to the display.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ke Xiao whose telephone number is (571) 272-7776. The examiner can normally be reached on Monday through Friday from 8:30AM to 5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sumati Lefkowitz can be reached on (571) 272-3638. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

SUMATI LEFKOWITZ
SUPERVISORY PATENT EXAMINER

January 30th, 2006 - kx -